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Preface

In 1982 the Hirtshals Fisheries Society took the initiative for the implementation of the present study project at FTI. The project received economic aid from the Association for the Danish Fishmeal and Fish Oil Industry Research Fund, and a follow-up group was appointed, consisting of consultant E. Kaas Hansen, Hirtshals Fisheries Society, director H. Lauritsen, Hirtshals Unloading Co. ApS, technical director E.V. Nielsen, Co-operative Herring Oil Plant A.m.b.A., Esbjerg, consultant Mogens Nielsen, Danish Marine Fisheries Society, Esbjerg, technical director H. Rasmussen, West Jutland Fish Meal Factory A.m.b.A., Esbjerg. J. Konge, Eng., Machine Works IRAS Esbjerg A/S, consulting naval architect Jorgen Petersen, Horsens, and Ettrup Petersen, D. Eng., assisted in the preparation of this report.

Thorkil Berg

1. Introduction

Problems connected with the unloading of industrial fish have claimed increasing attention throughout the years from the fish meal industry, the shipping industry, loading companies and authorities. The unloading of industrial fish is done in Denmark, just like in many fishery ports in the North Sea area, by moving the fish manually from the side holds towards the middle hold, from where it is taken out with an unloading machine and transported to the factory by screw conveyors or open tip-wagons. The method is labor-intensive and therefore costly and besides causes both environmental problems and unfavorable conditions in view of work hygiene. Therefore it is necessary, both economically and socially, to develop more rational equipment with a view to limiting pollution and improving working conditions.

The present report is intended to be a preliminary study aiming at identifying and preparing for the formulation of development projects within the area in question, and thus, the objective of the study is to produce a technical/economic analysis of existing unloading systems for industrial fish, taking into consideration the cargo space equipment of vessels.

Further information about the project can be had from Thorkil Berg, P.Eng., Danish Institute of Fisheries Technology.